CLAIM AMENDMENTS

1       1.   (currently amended)   A layer sequence or structure

2   comprising ~~a sequence of layers disposed one on another with~~:

3       a first highly doped $n_d$ -GaAs layer [[(3)]];

4       a graded layer [[(5)]] of AlGaAs on the first [[ly]]

5   highly doped layer ~~(3) whereby the~~ <u>and having an</u> aluminum

6   concentration ~~of this layer~~ <u>that</u> diminishes, starting from [[the]]

7   <u>a</u> boundary surface with the first highly doped layer, in the

8   direction of [[the]] <u>an</u> opposite boundary surface of the AlGaAs

9   layer [[(5)]]; [[and]]

10      a second highly doped $n^+$-layer ~~(7), characterized in~~

11  ~~that~~<u>; and</u>

12      on at least one boundary layer of the AlGaAs layer

13  [[(5)]] an undoped intermediate layer [[(4,6)]] juxtaposed with the

14  respective highly doped layer ~~(3,7) is provided~~.


1       2. (currently amended)  A layer sequence or structure in

2   accordance with claim 1~~, characterized in that~~ <u>wherein</u> the undoped

3   intermediate layer is composed of GaAs [[(4,6)]].


1       3.   (currently amended)   A layer sequence or structure in

2   accordance with claim 1 ~~characterized in that~~ <u>wherein</u> GaAs is the

3   material for the <u>second</u> highly doped $n^+$-layer [[(7)]].

4.    (currently amendment)   The layer sequence according
to claim 1 ~~characterized in that~~ <u>wherein</u> silicon or tellurium is
the doping substance.

5.   (currently amended)   The layer sequence or structure
according to claim 1 ~~characterized in that~~ <u>wherein</u> the layer
sequence ~~e (3, 4, 5, 6, 7)~~ is arranged on further layers [[(1,
2)]].

6.    (currently amended)   The layer sequence or structure
according to claim 1 ~~characterized in that~~ <u>wherein</u> the layer
sequence [[(3, 4, 5, 6, 7)]] is disposed on a $n^-$-GaAs layer
[[(2)]].

7.    (currently amended)   The layer sequence of claim 6~~,~~
~~characterized in that~~ <u>wherein</u> the $n^-$-GaAs layer [[(2)]] is disposed
on a highly doped $n^+$-layer ~~(1), especially~~ of GaAs.

8.   (currently amended)   The layer sequence or structure
according to claim 1~~, characterized in that~~ <u>wherein</u> the first
highly doped $n_d$-GaAs layer ~~(3) and/~~ or the second highly doped $n^+$-
layer [[(7)]] are doped with up to $10^{18}$ $cm^{-3}$ silicon.

1    9.    (currently amended)  A method of making a layer

2  sequence or structure, the method comprising [[with]] the steps of:

3          providing a first highly doped n_a-GaAs layer (3, 7) is

4  disposed on as a substrate having a pair of opposite boundary

5  surfaces,

6          forming on one of the boundary surfaces of the first

7  highly doped GaAs layer [[(3,7)]] an underdoped undoped GaAs layer

8  (4,6) is arranged and epitaxied epitaxiing the underdoped GaAs

9  layer at an appropriate temperature,

10         providing on the underdoped undoped GaAs layer (4, 6) a

11  graded AlGaAs layer (5) is disposed; and

12         providing on the other of the boundary surfaces a second

13  undoped GaAs layer and epitaxiing the second undoped GaAs layer at

14  an appropriate temperature.


        10. (canceled)


1    11.   (currently amended)   [[A]] The method according to

2  claim 9, characterized in that further comprising the step of

3          providing a further highly doped GaAs layer (3, 7) is

4  disposed on the second undoped GaAs layer [[(4, 6)]].

1    12. (currently amended) A layer sequence or structure

2 comprising ~~a series of layers disposed one on another with~~

3    a first highly doped layer,

4    a graded layer arranged on the first highly doped layer,

5    a second highly doped layer, <u>and</u> ~~characterized in that~~

6    on at least one boundary surface of the graded layer an

7 undoped intermediate layer ~~is arranged and~~ juxtaposed with one of

8 the highly doped layers.